1   44.   A routing system for distributing packets in a network, wherein the packets origi-

2   nate at a source and are returned to a destination, both source and destination external

3   with respect to the routing system, comprising:

4   a plurality of network interfaces that transfer packets to a destination and from a

5   source;

6   a plurality of route processing engines;

7   a hash mechanism that performs a hashing function on at least a portion of net-

8   work layer information, in the packets transferred to the routing system, to determine an

9   approximately even distribution of the packets to the route processing engines for proc-

10   essing by the engines, and

11   a processing mechanism that determines packets belonging to a same flow and

12   their original order from the network layer information of the packets, the network layer

13   information including at least the same source/destination and protocol,

14   a data transferer that sends each ordered packet flow to a single route processing

15   engine, thereby preserving the original ordered packet flows.

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